

Atlantic Richfield Company

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February 5, 2014

Mr. Steven Way
On-Scene Coordinator
Emergency Response Program (8EPR-SA)
US EPA Region 8
1595 Wynkoop Street
Denver, CO 80202-1129

Delivered via e-mail

**Subject: January 2014 Monthly Progress Report
Rico-Argentine Mine Site – Rico Tunnels
Operable Unit OU01, Rico, Colorado**

Dear Mr. Way,

This progress report describes activities conducted during the month of January 2014 at the Rico-Argentine Mine Site (site) and activities anticipated to occur during the upcoming month. These activities are organized by task as identified in the Removal Action Work Plan. This progress report is being submitted in accordance with Paragraph 35.a of the Unilateral Administrative Order for Removal Action (the "UAO"), dated March 17, 2011.

ACTIVITIES FOR JANUARY

This section describes significant developments during the preceding period including actions performed and any problems encountered during this reporting period.

Site-Wide Activities

- Performed an avalanche hazard observation on January 6, 2014, to evaluate site-specific snowpack conditions and access route safety.
- Finalized the Avalanche Hazard Study report for the St. Louis Ponds Site and the Argentine Mill Site/Access Road.
- Finalized the Winter Access and Operations Plan for 2013/2014 water sampling, monitoring, and inspection activities.

Task A – Pre-Design and Ongoing Site Monitoring

- Submitted and posted the Final September 2013 Surface Water and Ground Water Sampling and Flow Monitoring Reports to the project SharePoint site.
<https://www.aecomonline.net/projects/Rico/>
- Preparing and reviewing October and November 2013 Surface Water and Ground Water Sampling and Flow Monitoring Reports prior to submittal to EPA and posting to the project SharePoint site.
- Downloaded available flow data from the Parshall flume data loggers. The most recent data was obtained from the OTT PLS pressure transducer and ultra-sonic level sensor at north flume (DR-3) and from OTT Orpheus Mini at south flume (DR-6).
- Conducted inspection of the pond system spillways, pipes, water levels and general conditions. Overall condition of the pond system was good. All spillways and pipes were observed to be flowing without obstruction.

- No surface water or groundwater sampling was completed during the month of January 2014, as agreed to by Steve Way, USEPA On-Scene Coordinator, in December 2013. Sampling will be conducted on a quarterly basis in 2014.
- Continued work on overall site Data Management System (EQuIS) development. A web-based system with site data which can be queried in a tabular format has been set up and is currently being tested and refined. A web-based system with site data which can be queried from a map is complete and being tested internally.
- Additional evaluation of potential improvements on field water data gathering and telemetry. Continued work on the antenna permit with the Town of Rico.

Task B – Management of Precipitation Solids in the Upper Settling Ponds

- The St. Louis Tunnel discharge was routed to Pond 15 during the Month of January 2014.

Task C – Design and Construction of a Solids Repository

- Continued preparation of the Dolores County Land Use Application and associated documents for a Certificate of Designation for the solids repository.
- Continued work to secure lands needed for a permanent solids repository.
- Initiated development of the Request for Proposal (RFP) documents for construction of the Phase 1 solids repository.

Task D – Hydraulic Control Measures for the Collapsed Area of St. Louis Tunnel Adit

- Continued design of the proposed St. Louis Tunnel hydraulic control remedy which included continued drainage through the debris plug with sub-horizontal relief wells to control hydraulic head behind the debris plug, plus monitoring wells to evaluate hydraulic head in the tunnel.

Task E – Source Water Investigations and Controls

- Continued preparing a summary report documenting the results of the 2012 and 2013 St. Louis Tunnel Discharge Source Mine Water Treatability Studies (517 Shaft injection tests) for submission to the EPA by March 31, 2014.

Task F – Water Treatment System Analysis and Design

- Continued pilot-scale wetland treatability study activities.
 - Flow through the pilot-scale wetland will be maintained until the matrix materials from the rock drain and wetland cell are re-used as inoculum for the wetland demonstration.
 - Completed and submitted to the EPA on January 30, 2014, the *St. Louis Tunnel Discharge Constructed Wetland Pilot Scale Test Completion Report Addendum: Supplemental Sample Analysis Results* documenting the results of supplemental sample collection and scanning electron microscope analysis associated with the pilot-scale wetland.
- Continued wetland demonstration treatability study activities.
 - Completed and submitted to the EPA on January 31, 2014, the *St. Louis Tunnel Discharge Constructed Wetland Demonstration Treatability Study Final Design Report* documenting the design rationale for the *Unified Wetland Design and Technical Specifications*, which was submitted to EPA on December 31, 2013.
 - Developed the Request for Proposal (RFP) documents for construction of the Unified Wetland Design.

ACTIVITIES FOR UPCOMING MONTH

This section describes developments expected to occur during the upcoming reporting period, including a schedule of work to be performed, anticipated problems and planned resolution of past or anticipated problems.



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Site-Wide Activities

- Continue performing periodic avalanche hazard observations as needed to evaluate site-specific snowpack conditions and access route safety.

Task A – Pre-Design and Ongoing Site Monitoring

- Conduct surface water and Groundwater monitoring, sampling/analyses and flow measurements during February 2014.
- Conduct inspection of St Louis Pond water level and free-board.
- Conduct inspection of the St Louis Pond inlets, outlets and spillways as well as general embankment condition.
- Download flow data at DR-3 and DR-6. Inspect condition of flumes and monitoring equipment.
- Complete, review, and post the October 2013 Surface Water and Ground Water Sampling and Flow Monitoring Reports to the project SharePoint site during February 2014.
<https://www.aecomonline.net/projects/Rico>
- Submit Preliminary November 2013 Surface Water and Ground Water sampling and flow data for the site.
- Review the October and November 2013 Surface Water and Ground Water Sampling and Flow Monitoring Reports.
- Post Surface Water and Ground Water quality data to the SharePoint site after QA/QC review; and submit EQuIS data downloads to URS/EPA pending completion of EQuIS database.
- Continue testing of the site Data Management System in preparation for system rollout.

Task B – Management of Precipitation Solids in the Upper Settling Ponds

- Continue evaluation of calcine residuals/Pond 18 solids SPLP and associated geochemical testing.
- Continue routing St. Louis Tunnel discharge to Pond 15.

Task C – Design and Construction of a Solids Repository

- Continue work to secure the Dolores County Land Development Agreement and accompanying Certificate of Designation for the solids repository.
- Continue efforts to secure access to lands needed for a permanent drying facility and solids repository.
- Continue preparing the RFP documents for construction of the Phase 1 solids repository.

Task D – Hydraulic Control Measures for the Collapsed Area of St. Louis Tunnel Adit

- Continue detailed design for the hydraulic control measures for the collapsed area of the St. Louis Tunnel (adit).

Task E – Source Water Investigations and Controls

- Continue preparing a summary report documenting the results of the 2012 and 2013 St. Louis Tunnel Discharge Source Mine Water Treatability Studies (517 Shaft injection tests) for submission to the EPA by March 31, 2014.

Task F – Water Treatment System Analysis and Design

- Continue pilot-scale wetland treatability study activities.
 - Maintain flow through the pilot-scale wetland until the matrix materials from the rock drain and wetland cell are re-used as inoculum for the wetland demonstration.
 - Perform an inspection of the pilot-scale wetland during routine pond system inspections.



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- Continue wetland demonstration treatability study activities.
 - Prepare revisions to the wetland demonstration Work Plan and Performance Monitoring Plan to document changes, per the *Unified Wetland Design and Technical Specifications*.
 - Issue the RFP for construction of the Unified Wetland Design and conduct a bidder's site walk.
- Continue scoping additional data needs as necessary related to treatment system alternatives.

If you have any questions, please feel free to contact me at (951) 265-4277.

Sincerely,



Anthony R. Brown
Project Manager
Atlantic Richfield Company

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